COMPARISON AMONG THE DIFFERENT EGG PRODUCTION SYSTEMS IN "TARRAGONA FIELD"

Ricard Pallejà Bladé. Facultat de Veterinària, Universitat Autònoma de Barcelona
08193 Bellaterra, Spain

INTRODUCTION

Laying hens are kept in different systems, and the first number of the egg code defines through which system has been produced: battery cage (nº3), barn (nº2), free range (nº1) and organic (nº0).

Hens kept in cages are in a higher density and have higher egg production, probably due to a more effective egg collection (Flock. 2008. *Lohmann Information.* 43:13-21). In addition, this system has the advantage of having lower production costs. It is assumed that the alternative systems (barn, free range and organic) provide more welfare for the hens, but some studies show higher mortality in them (Burch. 2012. *Vet Rec*. 171:649-50).

The consumption of eggs in Catalonia has been reduced in recent years and its price has been increased following the ban on non-enriched cages. Only a low percentage of consumers in Catalonia can identify the egg code.

Image 1. The region of "Tarragona Field"

AIMS

- Analyze productive data from farms in the region of "Camp de Tarragona".
- Evaluate the awareness of consumers regarding the labeling of eggs and their willingness to make a change in consumption depending on the welfare of hens.
- Evaluate the possibility of a change in production in relation to animal welfare and consumer opinion.

MATERIAL AND METHODS

Surveys on farms: 6 farms were surveyed to find data about their production, management and health, and also their vision of the sector.

Surveys on consumers: 81 consumers in the area were surveyed to find out about their consumption, their knowledge towards the egg labeling and their willingness to change their consumption.

DISCUSSION

The management of all the farms is similar and there are no big differences between their health and production data. There is no lower egg production in free range hens and neither higher rates of mortality.

Farmers claim that the price of eggs is too low to be able to have profits. Despite the higher production costs, the free range farm can have benefits due to the added value of the eggs.

Average consumption is 2.57 eggs/week and a low percentage of consumers can identify the egg code. Most of them would be willing to pay more for the eggs if it meant an improvement of the hen welfare. However, most consumers would assume a cost of no more than 0.50 €.

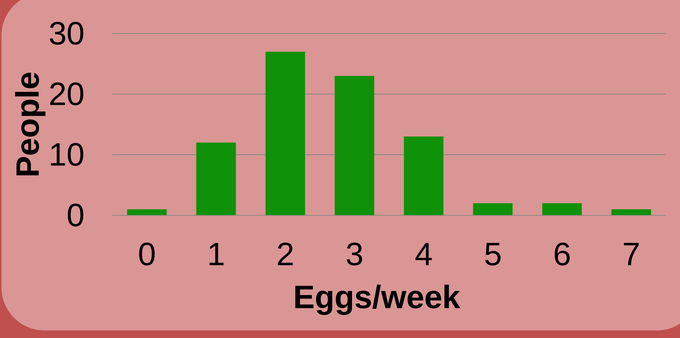
An increase of the egg price is necessary for producers to have benefits and to improve animal welfare.

RESULTS

Table 1. Results of the farms survey

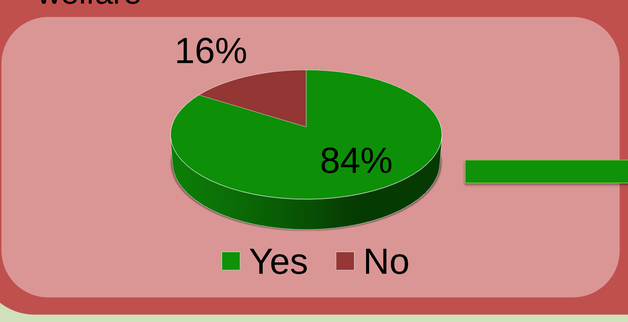
	Farm 1	Farm 2	Farm 3	Farm 4	Farm 5	Farm 6
System	Cage	Cage	Cage	Cage	Cage	Free range
nº hens	50000	73000	58000	169000	150000	20000
% egg prod. (peak)	95%	95%	93%	92%	88%	94%
nº feeds	2	2	2	2	2	2
Light program	16h	16h	16h	16h	15+1h	Natural light
% mortality / month	2%	Low	5%	1.5%	1.5%	Low
Relevant outbreaks	No	No	No	No	*E.Coli*	No

Graph 1. Egg consumption per week

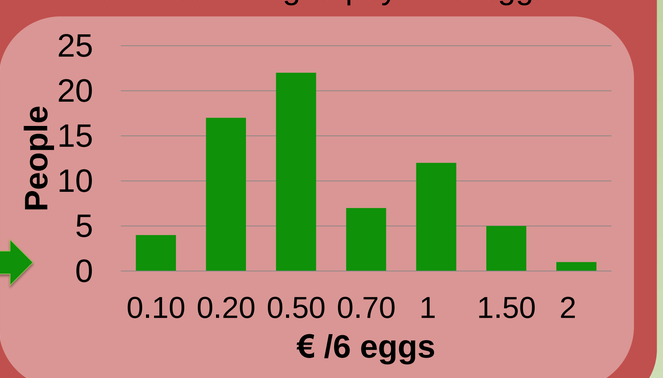


Consumers said to know the different types of egg production systems and their labeling. However, only **14,81%** of consumers identified the egg code correctly.

Graph 2. Consumers willing to pay more for an improvement in hens welfare



Graph 3. Added cost costumers would be willing to pay for 6 eggs



CONCLUSIONS

The differences between production data are, apparently, not related to the production system.

Consumers can't identify correctly the labeling of eggs but are willing to change their type of consumption to promote animal welfare.

Prices and current consumption represent a huge obstacle to changing the existing production system.